

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) An isolated or purified amino acid sequence selected from the group consisting of comprising:

(a) ~~the~~ an amino acid sequence ~~presented as set forth as~~ SEQ ID No. 1 NO: 1; ~~or a variant, homologue, fragment or derivative thereof.~~

(b) an amino acid sequence having greater than 97% sequence identity to SEQ ID NO: 1 and;

(c) an amino acid sequence including amino acids 1-24 of SEQ ID NO:1.

2-7. (Cancelled).

8. (Withdrawn). An assay method for identifying an agent that can affect PDE1B2 activity or expression, the assay method comprising

contacting an agent with an amino acid according to claim 1 or a nucleotide sequence according to any one of claims 2 to 7; and

measuring the activity or expression of PDE1B2;

wherein a difference between a) PDE activity or expression in the absence of the agent and b) PDE activity or expression in the presence of the agent is indicative that the agent can affect PDE1B2 activity or expression.

9. (Withdrawn) An assay method according to claim 8 wherein the assay is to screen for agents useful in the treatment of a cardiovascular disorder, a GI disorder, and/or disorders found in any one or more of the cardiovascular system, the GI system, spleen.

10. (Withdrawn) A process comprising the steps of:

- (a) performing the assay according to claim 8 or claim 9;
- (b) identifying one or more agents that do affect PDE1B2 activity or expression; and
- (c) preparing a quantity of those one or more identified agents.

11-12. (Cancelled).

13. (Currently amended) ~~An enzyme~~ phosphodiesterase capable of having an immunological reaction with an antibody raised against ~~PDE1B2~~ the amino acid sequence(s) of claim 1.

14. (Cancelled).

15. (Currently Amended) A ~~PDE~~ phosphodiesterase wherein the ~~PDE~~ phosphodiesterase is ~~expressable~~ expressed from a nucleotide sequence obtainable from NCIMB 41026 or SEQ ID NO:2.

16-18. (Cancelled).

19. (Withdrawn) A PDE1B2 agonist wherein the PDE1B2 is as defined in claim 1 or is the nucleotide sequence coding for same.

20. (Withdrawn) A PDE1B2 antagonist wherein the PDE1B2 is as defined in claim 1 or is the nucleotide sequence coding for same.

21. (Currently Amended) A ~~An isolated~~ recombinant ~~PDE1B2~~ phosphodiesterase enzyme as set forth in claim 1.

22-23. (Cancelled).

24. (New) The isolated or purified amino acid sequence of claim 1 comprising SEQ ID NO:1.

25. (New) The isolated or purified amino acid sequence of claim 1 comprising an amino acid sequence having greater than 98% sequence identity to SEQ ID NO: 1, said amino acid sequence having phosphodiesterase activity.

26. (New) The isolated or purified amino acid sequence of claim 1 comprising an amino acid sequence having greater than 99% sequence identity to SEQ ID NO: 1, said amino acid sequence having phosphodiesterase activity.

27. (New) The isolated or purified amino acid sequence of claim 1 comprising an amino acid sequence including amino acids 1-24 of SEQ ID NO:1.

28. (New) The antibody as recited in claim 13.